Amendments to the Specification

Please replace the paragraph beginning at page 10, line 2, with the following rewritten paragraph:

~~**Figure 1.**~~ **Figures 1A-1C.** Protection from sialoadenitis and absence of dacryoadenitis in ICA69 deficient NOD mice. (Figure 1A) Female ICA69$^{+/-}$ and ICA69$^{-/-}$ NOD mice were sacrificed at various ages and the number of mononuclear cell foci in both submandibular glands were enumerated. *P > 0.1; **P < 0.01; ***P < 0.001. (Figure 1B) Representative histopathology of submandibular glands from ICA69$^{+/-}$ and ICA69$^{-/-}$ NOD mice of various ages (H&E stains, 40X magnification). (Figure 1C) Histological signs of dacryoadenitis, observed in most ICA69$^{+/-}$ NOD males, is absent in ICA69$^{-/-}$ NOD males ages 35-40 weeks (H&E stains, 100X magnification).

~~**Figure 2.**~~ **Figures 2A-2D.** Measurement of T cell proliferative responses to ICA69,its dominant epitope, Tep69, BSA, and its dominant NOD mouse epitope, ABBOS, measured in lymph nodes draining the pancreas (Figure 2A), and submandibular glands (Figure 2B), or lymph nodes draining the lower (Figure 2C) or upper (Figure 2D) extremities. Gray columns: control cultures stimulated with ovalbumin (OVA) or Medium (MED) only. To obtain sufficient cell numbers, lymph node cells were pooled from seven mice. One of three

similar data sets is shown.

~~**Figure 3.**~~ **Figures 3A-3E**. Modification of sialoadenitis by peptide-based immunotherapy. (Figure 3A) 10-week old NOD females received 200µg ABBOS i.p. in incomplete Freud's adjuvant (IFA), vehicle only (PBS) or were left untreated. Sialoadenitis scores were measured 5, 10 or 15 weeks later. Colour key: protected mice -red, unchanged sialitis -green, enhanced disease-blue. (Figure 3B) Submandibular gland from a 20 wk old NOD female previously injected with PBS-IFA. Absence (Figure 3C), reduction (Figure 3D), or increase (Figure 3E), of sialoadenitis in submandibular glands from 20 wk old NOD females injected with ABBOS peptide 10 weeks earlier (H&E stains, 40X magnification).

Figure 4. Splenic T cell responses to Tep69 in ABBOS-treated mice with perisitent sialoadenitis (n=6, green or blue shading in A), and mice with peptide-mediated disease reduction (n=11, red shading in A).

Figure 5. Pilot studies were used to hone in on 3 variables: peptide dose, route of administration(i.v., i.p., s.c.) which effect the success of pSS immunotherapy.

Figure 6. Illustration of effectiveness of ABBOS peptide-based vaccine, and involvement of anti-mACHR autoantibodies in affecting salivation.

Figure 7. T and B cell autoimmunity to ICA69 in patients with

primary SS, and SLE versus healthy controls.

Figure 8. T and B cell autoimmunity to ICA69 in patients with pSS.

Please replace the paragraph beginning at page 20, line 2, with the following rewritten paragraph:

Human recombinant ICA69-b was purified as described[14]. Grade V bovine serum albumin (BSA) and Ovalbumin (OVA) were purchased (Sigma, St. Louis, MO). Peptides were purchased HPLC purified (>95%) and confirmed by mass spectroscopy (numbers indicate the N-terminal amino acid position): Tep69 (ICA69-p36), AFIKATGKKEDE (SEQ ID NO:1); ABBOS (BSA-p150) FKADEKKFWGKYLYE (SEQ ID NO:2). In immunotherapy experiments, NOD female mice, 10 weeks of age, were given a single intraperitoneal injection (100ml) of either 200mg ABBOS peptide or PBS, both emulsified at a 1:1 ratio in incomplete Freund's adjuvant (IFA). Control mice were untreated. Organs were harvested for histopathology at various times after treatment.